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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/545,589	04/07/2000	Scott A. Moskowitz	066603.0123	9928

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WILEY, REIN & FIELDING, LLP  
ATTN: PATENT ADMINISTRATION  
1776 K. STREET N.W.  
WASHINGTON, DC 20006

EXAMINER

LANIER, BENJAMIN E

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 02/13/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Dr.

<b>Office Action Summary</b>	Application No. 09/545,589	Applicant(s) MOSKOWITZ ET AL.	
	Examiner Benjamin E Lanier	Art Unit 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-52 and 59-86 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-52 and 59-86 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's cancellation of claims 1-15, 53-58 has been fully considered and is entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 16-22, 25-27, 29, 31-40, 42, 43, 45-52, 59-64, 66-86 are rejected under 35 U.S.C. 102(b) as being anticipated by Rhoads, U.S. Patent No. 5,748,783. Referring to claims 16-20, 22, 25, 27, 31, 33, 34, 37, 38, 42, 43, 45-52, 59, 62-64, 66-86, Rhoads discloses a method for robust information coding wherein several random digital signals are generated to be (Fig. 2) embedded into an input source signal that could be image, or video to produce a watermarked signal (Abstract), which meets the limitations generating a random sequence of binary numbers for applying a digital watermark to a content signal. Figs. 9A & 9B give an example of what the waveform of an industry standard noise second may look like, both in time domain and the frequency domain, this meets the limitation of generating information describing the application of the random sequences to the content signal and the information being of two groups: time delimiters describing segments of the content signal; frequency delimiters describing frequency bands of the content signal. Figs. 5 & 6 along with Col. 15, line 25 – Col. 16, line 65, disclose embedding is done with different signal encoding levels. Col. 25, lines 30-60 discusses the

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resolution parameters in the embedding process, which meets the limitation of the sample window size.

Referring to claims 21, Rhoads discloses that there can be more than one content stream samples (Col. 15, lines 54-63).

Referring to claim 26, Rhoads discloses that the content signal is processed using a root mean square function (Col. 3, lines 8-13).

Referring to claims 29, 40, 60, 61, Rhoads discloses that the system contains a memory (database) wherein the random sequences can be stored (Fig. 6).

Referring to claim 32, Rhoads discloses being able to locate the watermark information signal in the content signal and verify the watermark information as the very information that was embedded earlier (Col. 8, line, 42 – Col. 9, line 62).

Referring to claims 35, 36, 39, Rhoads discloses using alphanumeric codes in the encoding functionality (Col. 34, lines 48-67).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 23, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads, U.S. Patent No. 5,748,783, in view of Menezes. Referring to claims 23, 24, Rhoads discloses a method for robust information coding wherein several random digital signals are generated to be (Fig. 2) embedded into an input source signal that could be image, or video to produce a

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watermarked signal (Abstract), which meets the limitations generating a random sequence of binary numbers for applying a digital watermark to a content signal. Figs. 9A & 9B give an example of what the waveform of an industry standard noise second may look like, both in time domain and the frequency domain, this meets the limitation of generating information describing the application of the random sequences to the content signal and the information being of two groups: time delimiters describing segments of the content signal; frequency delimiters describing frequency bands of the content signal. Figs. 5 & 6 along with Col. 15, line 25 – Col. 16, line 65, disclose embedding is done with different signal encoding levels. Col. 25, lines 30-60 discusses the resolution parameters in the embedding process, which meets the limitation of the sample window size. Rhoads does not disclose the random key generation of claim 23. Menezes discloses the generation of a random key using random strings that are hashed and run through a DES algorithm (block encryption cipher) and subsequently concatenated (Page 175, 5.16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to generate a random key in the manner disclosed in Menezes because algorithm 5.16 is a well-known algorithm in the art.

6. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads, U.S. Patent No. 5,748,783, in view of Shur, U.S. Patent No. 6,330,672. Referring to claim 28, Rhoads discloses a method for robust information coding wherein several random digital signals are generated to be (Fig. 2) embedded into an input source signal that could be image, or video to produce a watermarked signal (Abstract), which meets the limitations generating a random sequence of binary numbers for applying a digital watermark to a content signal. Figs. 9A & 9B give an example of what the waveform of an industry standard noise second may look like, both

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in time domain and the frequency domain, this meets the limitation of generating information describing the application of the random sequences to the content signal and the information being of two groups: time delimiters describing segments of the content signal; frequency delimiters describing frequency bands of the content signal. Figs. 5 & 6 along with Col. 15, line 25 – Col. 16, line 65, disclose embedding is done with different signal encoding levels. Col. 25, lines 30-60 discusses the resolution parameters in the embedding process, which meets the limitation of the sample window size. Rhoads does not disclose the content signal is divided into a plurality of channels. Shur discloses that the content signal to be watermarked can be distributed on a number channels (Col. 3, lines 28-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made for the content signal of Rhoads to be distributed over multiple channels in order for the content to be distributed in multiple ways as disclosed in Shur (Col. 3, lines 25-33).

7. Claims 30, 41, 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads, U.S. Patent No. 5,748,783, in view of Koopman, U.S. Patent No. 5,363,448. Referring to claim 30, 41, 65, Rhoads discloses a method for robust information coding wherein several random digital signals are generated to be (Fig. 2) embedded into an input source signal that could be image, or video to produce a watermarked signal (Abstract), which meets the limitations generating a random sequence of binary numbers for applying a digital watermark to a content signal. Figs. 9A & 9B give an example of what the waveform of an industry standard noise second may look like, both in time domain and the frequency domain, this meets the limitation of generating information describing the application of the random sequences to the content signal and the information being of two groups: time delimiters describing segments of the content

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signal; frequency delimiters describing frequency bands of the content signal. Figs. 5 & 6 along with Col. 15, line 25 – Col. 16, line 65, disclose embedding is done with different signal encoding levels. Col. 25, lines 30-60 discusses the resolution parameters in the embedding process, which meets the limitation of the sample window size. Rhoads does not disclose concatenating the random sequence with signal information and then encrypting the concatenation. Koopman discloses a random number generation process wherein a random sequence is concatenated with certain values of an incoming signal and subsequently encrypted (Abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to concatenate the signal information of Rhoads with the random sequence and encrypt the concatenation in order to make a security breach harder as taught in Koopman (Col. 2, lines 21-37).

8. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads, U.S. Patent No. 5,748,783, in view of Shur, U.S. Patent No. 6,330,672. Referring to claim 45, Rhoads discloses a method for robust information coding wherein several random digital signals are generated to be (Fig. 2) embedded into an input source signal that could be image, or video to produce a watermarked signal (Abstract), which meets the limitations generating a random sequence of binary numbers for applying a digital watermark to a content signal. Figs. 9A & 9B give an example of what the waveform of an industry standard noise second may look like, both in time domain and the frequency domain, this meets the limitation of generating information describing the application of the random sequences to the content signal and the information being of two groups: time delimiters describing segments of the content signal; frequency delimiters describing frequency bands of the content signal. Figs. 5 & 6 along with Col. 15, line

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25 – Col. 16, line 65, disclose embedding is done with different signal encoding levels. Col. 25, lines 30-60 discusses the resolution parameters in the embedding process, which meets the limitation of the sample window size. Rhoads does not disclose the distribution restriction information of claim 44. Shur discloses a watermarking process wherein the watermark can contain information that identifies the work (file name), the owner, the purchaser (telephone number, email address), and the limited play license defined by the number of plays (logical constraint)(Col. 4, lines 14-34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use incorporate the identification information in the watermark of Rhoads in order to protect the content to be watermarked as taught in Shur (Col. 4, lines 13-34).

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin E Lanier whose telephone number is 703-305-7684. The examiner can normally be reached on M-Th 7:30am-5:00pm, F 7:30am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (703)305-1830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

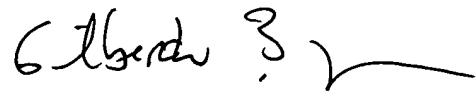


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Benjamin E. Lanier



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